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THE DEVELOPMENT OF LINKAGES AND VALUE CHAINS FOR SUSTAINABLE FARMER PRODUCER COMPANIES: EVIDENCES FROM SOUTHERN DISTRICTS OF TAMIL NADU, INDIA

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ABSTRACT

Apart from the technological innovation and transfer of technology; institutional establishment like Farmer Producer Company is a viable option to increase the farmers' income through their collective actions. FPCs are emerging larger in number with the support of SFAC and NABARD to provide business services to small and marginal farmers. This paper aims to bring out the evidences of effective linkages and value chains benefiting the stakeholders of the FPCs in southern districts of Tamil Nadu. FPCs were classified based on several action criteria and financial benefit realized by the member farmers was estimated by Partial Budgeting framework. 'Virudhai Millet FPC' adopted a value chain with strong backward (supply of inputs to farmers and purchase of quality millets) and forward (good price, value addition and products of consumers' choice) linkages, which resulted the FPC member farmers to realize an increased net income of Rs. 1,750 per acre in case of bajra and a net income of Rs. 1,720 per acre in case of black gram. Similar value chain was adopted by 'Neithal Sustainable Agriculture FPC' and resulted an additional net income of Rs. 4,100/ac to the member farmers cultivated Kuzhi adichan (red) rice. 'Ramanathapuram Chillies FPC' does not supply inputs but arranges input credit to the member farmers. This FPC purchased chillies from the member farmers at Rs. 160 per kg and adopted a strong forward linkage, which contributed an increased net income of Rs. 2, 400 per acre. 'Madurai Maavatta tennai Mattrum Ethara Payirgal Producer Company Limited' coconut growers realized an additional net income of Rs. 4,900 per acre through better marketing practices. Similarly, Goat producers of Theni Goat FPC realized Rs. 2,000 additionally for every goat; vegetable growers of 'Chinnamanur Vegetable FPC' realized Rs. 17,000 per acre; the mango growers of 'Periyakulam Mango and Vegetable FPC' realized Rs. 16,000 per acre and maize growers of 'Srivilliputhur Maize FPC' realized an additional net income of Rs. 5200 per acre because of the value chain and management strategies adopted by the respective FPCs. However, other FPCs which are at initial stage of development are yet to reap the benefits of large volume operations.

KEYWORDS: SFAC, NABARD, Collective Action, Farmer Producer Company, Value Chains & Farmers Income

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INTRODUCTION

Farmer Producer Companies emerged as fourth category of corporate entity in 2002 under Indian Companies Act 1956 amendments. FPC is farmers collective and it provides business services to member farmers. The Small Farmers' Agribusiness Consortium (SFAC) was instrumental in setting up FPCs in a drive to promote rural enterprises. The National Bank for Agriculture and Rural Development (NABARD) has also promoted more than 2,000 producer organisations since 2008–09. Policies are framed to support FPC in different fronts *viz.*, technology, credit, and marketing support, 100 per cent tax deduction for post-harvest activities up to a turnover of Rs. 100 crore for five years. The National Commodity and Derivatives Exchange (NCDEX) has taken initiatives to take FPCs along for hedging and other benefits.

As part of SFAC's mission to link small farmers to technology as well as to the markets in association with private, corporate or cooperative sector and if necessary, by providing backward and forward linkages, an initiative has been taken to establish State Level Federations of FPOs to create a State level umbrella support for the member FPOs. These federations exist under the statutes of Companies Act as Producer Companies and are seen as an effective solution to the challenge faced by stand alone FPCs. In the first phase, 8 such State Level Producer Companies (SLPCs) are supported in the States of Madhya Pradesh, Rajasthan, Maharashtra, Gujarat, Tamil Nadu, Uttar Pradesh, Telangana and West Bengal (SFAC, 2019).

Most of FPCs have been engaged in sale of agricultural inputs such as seeds fertilizers and pesticides to farmers while some of them are involved in commercial seed production and marketing of aggregated produce and value added products. However, only a handful of FPCs have been able to become financially viable. Value chain participation by farmers can be merely as suppliers, in which case they do not get any share of the further value added. If, however, the farmers are aggregated into large numbers, and enabled to own parts of the value chain, they can benefit from the downstream value addition as well. For this, they need to invest capital and the value chain has to be integrated. To create an effective agricultural value chain, financing of agricultural value chains is a very important need. Agricultural value chain finance is a structured way of financing agriculture that links stakeholders operating within the value chains and lending institutions, and reduces the risks that are commonly associated with traditional agricultural financing (Gouri and Mahajan, 2017).

FPCs sustainability has two dimensions: (i) organizational sustainability and (ii) business sustainability. FPCs have a huge potential to capture the future food retails not only in India but in the world. Irrespective of the form of organization being floated as a producer company, especially of small and marginal producers, concerted effort is to be made for developing and sustaining the institution. Such effort should be in the form of research, capacity building, policy and management support. It has tremendous possibility to become a model for enhancing sustainable livelihood of small and marginal farmers in India and for income enhancement (Mukherjee *et. al.*, 2018). The determinants of performance and viability of the FPCs are governance structure; network with external agencies; access to capital and technology; member–producers' contribution to business; and financial performance. These companies can become viable if they follow the stakeholder strategy for cooperation and orientation to marketing of members' produce and business expansion. Farmer producer companies can benefit if robust performance metrics based on these determinants of performance and viability are developed; these metrics influence policy makers and apex agencies; and there is a bottom-up approach in implementation and convergence between promoting agencies and financial institutions (Dey, 2019).

Though aggregating producers into collectives is widely accepted means to reduce the risk in agriculture, the

majority of FPOs continue to struggle to establish viable and sustainable business models. FPCs face a number of problems such as the lengthy process of registering a company, non-availability of collateral-free loan at low rate of interest and lack of leadership and business acumen (Jayashree, 2018).To ensure the viability of any organisation, it is necessary to understand the stakeholder potential for cooperation, their threat to the organisation, and the life cycle attributes of an organisation (Turnbull 1998). FPCs face problems but have a bright future (Alagh, 2019). This paper attempted to study the potentials and performance of FPCs in southern district of Tamil Nadu.

OBJECTIVES AND METHODOLOGY

This paper is based on the study of FPCs in southern districts *viz.*, Madurai, Theni, Virudhunagar, Ramanathapuram and Kanyakumari from 2016-19 with the overall objective to study the performance of the FPCs and to provide viable suggestions for sustainability of these FPCs. This paper brings out the organizational aspects, financial sources and business activities of FPCs. Performance of each FPC was assessed based on membership, share value, CEO's education and experience, business activities with value addition, matching grant, turn over, training attended, asset creation, new business plan, overall management, linkages and functions of Board of Management. Scores were given to these attributes (Yes or No or level of development) and simple sum scoring method was adopted to classify FPCs as active (more than 30), moderate (25 to 30) and less active (less than 25). Business activities were analyzed to find out the benefits to the stakeholders and also to map the emerging value chains. Partial budgeting framework (comprising added cost, added benefit, reduced cost and reduced benefit) was employed to estimate the benefits to FPC member farmers compared to non-member farmers.

RESULTS AND DISCUSSIONS

Spread of FPCs in five southern districts is given in Table 1. Relatively more numbers of FPCs are functioning in Virudhunagar district, which is basically a major market hub for agricultural produces. This was followed by Madurai and Theni districts which are also known for their agricultural produce markets.

Table 1: District wise Spread of FPCs

S. No.	Districts	Number of FPCs
1	Madurai	7(18.92)
2	Theni	7(18.92)
3	Virudhunagar	14(37.84)
4	Ramanathapuram	5(13.51)
5	Kanyakumari	4(10.81)
	Total	**37(100)**

(Figures in parenthesis indicate percentage to total)

Financial resource is critical determinant of any organization. Being farmers collective and new of its kind, FPCs are in need of funding right from establishment to sustainable stage. NABARD remains the major source of funding for FPCs and funded more than 62 per cent of the FPCs in southern districts. TNSFAC funded 27 per cent, while 10 per cent of FPCs are self-supported (Table 2).

Table 2: Details on FPOs and Source of Funding

S. No	Source of Funding	Number of FPCs
1	NABARD	23(62.16)
2	TNSFAC	10(27.03)

Table 2: Contd.,		
3	Own fund	4(10.81)
	Total	**37(100.00)**

(Figures in parenthesis indicate percentage to total)

Performance of the Chief Executive Officer (CEO) is also one of the major factors contributing to the efficient performance of the FPC. Among 37 CEOs, 29 (78.38 %) were male and only eight (21.62 %) were female. As a whole, nearly 60 per cent of CEOs were degree holders and 27 per cent were post graduates (mostly MBA); showed that majority of the CEOs had high academic qualification. Though, the remaining CEOs were qualified at high school and diploma level, they possess the experience in field and markets.

Table 3: Academic Qualification and Gender of CEOs of FPOs (Numbers)

S. No.	CEOs Qualification	Male	Female	Total
1	H.Sc.	1	2	3(8.41)
2	Diploma	1	1	2(5.41)
3	Degree	19	3	22(59.46)
4	Masters (MBA)	8	2	10(27.03)
	Total	**29(78.38)**	**8(21.62)**	**37(100.00)**

(Figures in parenthesis indicate percentage to total)

Strength of FPCs in term of farmers' membership is directly attributed to the shares (financial), aggregation of produce (physical) and benefit sharing. In total, 18,062 farmers were members of the FPCs under this study, which accounted on an average of 488 farmers per FPC. About 80 per cent of the members were marginal (35 %) and small (45 %) farmers; remaining 20 per cent were large farmers (Table 4). This showed that these FPCs are constituted with more number of marginal and small farmers, which is one of the prime objectives of establishing FPCs to benefit less privileged section of farmers. Shaikh and Dey (2016) suggest that consistency in patronage distribution between member-producers under a robust governance structure is critical in sustaining FPCs. To sustain or increase member contribution to the organisation's business, it is crucial to distribute patronage bonus and dividend per equity share to members.

Table 4: Categories of Farmers and Size of Membership in FPCs

S. No	Particulars	No of Farmers	Average no of Farmers
1	Marginal farmers	6332(35.06)	171(35.06)
2	Small farmers	8138(45.06)	220(45.08)
3	Large farmers	3592(19.89)	97(19.88)
	Total	**18062(100.00)**	**488(100.00)**

(Figures in parenthesis indicate percentage to total)

Table 5: Agricultural Commodities Dealt by FPCs

S. No	Crops/Commodities	No of FPCs	Percentage to Total (%)
1	Coconut	4	10.81
2	Groundnut	1	2.70
3	Banana	2	5.41
4	Maize	1	2.70
5	Goat	2	5.41
6	Millets	7	18.92
7	Vegetables	7	18.92
8	Chilli	5	13.51
9	Honey	1	2.70
10	Fish	1	2.70
11	Grapes	1	2.70

Table 5: Contd.,

12	Paddy and pulses	3	8.11
13	Herbal	2	5.41
	Total	**37**	**100.00**

Aggregation of produce and scale of operation provide advantageous position in markets. Nature of commodity, production based on consumer preference, quality and price largely determine the profitability of business. Table 5 shows that millets (19 %), vegetables (19 %) and chilli were the commodities largely dealt by the FPCs followed by coconut (11 %), paddy and pulses (8 %). Banana, goat and medicinal plants were also some of the important profitable commodities handled by 5.41 per cent of FPCs. Groundnut, maize, honey and grapes were the commodities handled by one FPC each. High value commodities and value added products contribute to turnover of the FPCs.

Based on membership, share value, CEO's education and experience, business activities with value addition, matching grant, turn over, training attended, asset creation, new business plan, overall management, linkages and functions of Board of Management; FPC are classified as active, moderate and less active given in Table 6. Top 10 (27 %) FPCs with score more than 30 are active in their business and profitability, followed by 12 (32.41 %) companies which are moderately active and growing in business. Remaining 14 (38 %) FPCs less active because of their low business activities, less value addition, poor business plans since they are at initial stage of development.

Table 6: Classification of FPCs Based on the Performance Criteria Score

S. No.	Farmer Producer Companies	Total Score	Category
1	Viruthai Millets Farmer Producer Company Limited	38	Active
2	Theni District Goat Farmers Producer Company Limited	35	
3	Neithal Sustainable agriculture Farmer Producer Company Lt	34	
4	Ramanathapuram chillies producer company ltd	34	
5	Ramanathapuram Farmers producer company ltd	33	
6	Ramanar Millets Farmers Producer Company limited	32	
7	Aharam Traditional Crop Producer Company Limited	31	
8	Seeds Farmer Producer Company Limited	30	
9	Madurai Mavatta Thennai matrum Ethargal Payir Sagupadiyalargal Company Limited	30	
10	Madurai Traditional crop producer company limited	30	
11	Marumalarchy Famers producer company	29	Moderately active
12	Srivilliputtur maize farmers producer company limited	28	
13	Ramanathapuram Mundu Chilli Farmer Producer Company	28	
14	Periyakulam Mango & Vegetables Producer company Ltd	28	
15	Sevaiyur mooligai segaripoor matrum sagupadi urpathiyalargal producer company ltd	27	
16	Usilampatti Farmers Producer Company	27	
17	Amiltham farmer producer company ltd	27	
18	Vaigai Farmers Prodcuer Company Limited	27	
19	Sevaiyur Traditional Crop Producer Company Ltd	26	
20	Asefaa livestock producer company ltd	26	
21	Kanyakumari Coconut Producer Company Ltd	26	
22	Rajapalayam Precision Farmers Producer Company Limited	25	
23	Mannar Fisherman's Producer Company Limited	25	
24	Kadambavanam Farmers Producers Company Limited	24	Less active
25	Thiruparankundram Farmers Producer Company Limited	24	
26	Aundipatty Farmers Producers company	24	
27	Cinnamanur Farmers Producer Company Limited	24	
28	Cumbum Valley Grape Growers Company Limited	24	

Table 6: Contd.,		
29	Kariapatti Millets farmers producer company	23
30	Women Vidiyal Farmer Producer Company Limited	22
31	Kasthuriba Farmers Producer Company Limited	22
32	Arumpoo farmers Producer Company Limited	22
33	Kanyakumari Banana & Horticulture Producer Company Ltd	22
34	Koodalmanagar vegetable Farmer Producer Company Ltd	21
35	Theni coconut farmer producer company limited	21
36	Kanyakumari Banana Producer Company Limited	19
37	Gandhigram Farmers and Herbal Producer Company Ltd	19

Table 7: Profitability Due to Linkages, Value Chains and Collective Action by FPCs

S. No.	Farmer Producer Company	Activity / Value Chain	Added Net Profit
1	Viruthai Millets Farmer Producer Company Limited	A value chain with strong backward (supply of inputs to farmers and purchase of quality millets) and forward (good price, value addition and products of consumers' choice) linkages	Bajra: Rs. 1,750 per acre Blackgram: Rs. 1,720 per acre
2	Neithal Sustainable agriculture Farmer Producer Company Ltd	A value chain with strong backward (supply of inputs to farmers and purchase of quality millets) and forward (good price, value addition and products of consumers' choice) linkages	*Kuzhi adichan* (red) rice: Rs. 4,100 per acre
3	Ramanathapuram chillies producer company ltd	Does not supply inputs but arranges input credit. Purchases chillies from the member farmers at Rs. 160 per kg and adopted a strong forward linkage	Chilli: Rs.2,400 per acre
4	Madurai Mavatta Thennai matrum Ethargal Payir Sagupadiyalargal Company Limited	Better marketing practices Higher price to farmers Product development	Coconut: Rs. 4,900 per acre
5	Theni District Goat Farmers Producer Company Limited	Better marketing practices Higher price to farmers	Goat: Rs. 2,000 per goat
6	Cinnamanur Farmers Producer Company Limited	Aggregation Better marketing practices Higher price to farmers	Vegetables: Rs. 17,000 per acre
7	Periyakulam Mango & Vegetables Producer company Ltd	Aggregation Better marketing practices Higher price to farmers	Mango & Vegetables: Rs. 16,000 per acre
8	Srivilliputtur maize farmers producer company limited	Aggregation Better marketing practices Higher price to farmers	Maize: Rs. 5200 per acre

FPCs from the three categories are considered for their business activities and net profit brought to the member farmers is depicted in Table 7. Because of the backward and forward linkages, the FPCs could generate added returns to their business. Though some of the FPCs are having either forward or backward linkage, they could able to bring a reasonable profit to their member farmers. Strengthening the linkages and building the missing links will result the active business for the FPCs. A detailed flow chart of the value chain adopted by Viruthai Millets Farmer Producer Company Limited is given in Figure 1.

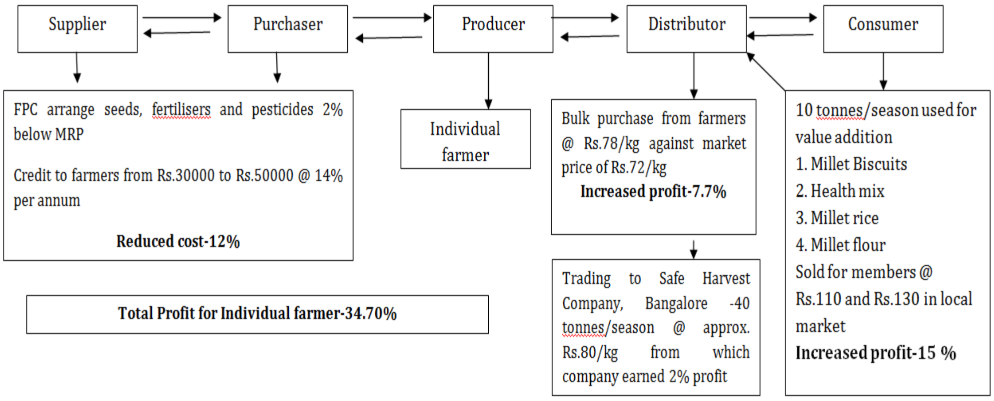

Figure 1: Outline of Value Chain of Viruthai Millets Farmer Producer Company Limited

CONCLUSIONS AND POLICY IMPLICATIONS

FPCs are functioning with the herculean task of managing large number of member farmers because of the substantial support from NABARD, TNSFAC in addition to the farmers share. Experienced and qualified CEOs were the main reason for active business environment of the FPCs and profit generation. FPCs are operating at different efficiency levels because of the crop/commodity handled, value addition, financial support and business plan in total. Successful FPCs had strong forward and backward linkages, while others are in developing those linkages. At present, a well developed value chain could not be observed among the FPCs but few of them are in the process of bridging the missing linkages to perform efficiently. The success of FPC will result benefits to poor farmers, since marginal and small farmers are the major stakeholders.

The identified successful FPC models may be showcased to the other FPCs for improving their business performance. Government development schemes are expected to continuously provide the handhold support to the FPCs based on their stage of development. Capacity building programmes on the management aspects to different stakeholders of FPCs are to be continuously provided. Purchase of products of FPCs may be scaled up through public programmes. Development of business and developmental value chains would result the profitability of business and sustainability of the FPCs.

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